

REMARKS

Claims 27-49 were rejected in an Office Action dated August 15, 2007. Claims 27, 30, and 48 have been amended, support for which may be found in the "Detailed Description of the Invention". No new matter is deemed added by the instant amendments. Applicant respectfully requests reconsideration of the present application in view of the following remarks.

Rejections under 35 USC §112

Claims 27-49 stand rejected under 35 USC §112, 2nd paragraph. Applicant respectfully asserts that amendments to claims 27 and 30 render moot the rejection under this section. Support for the amendment to claim 30 may be found, for example, beginning on page 7 of the specification. It is stated therein that the insulating structures may comprise a continuous body of structure material, or alternately, one or more sections of structure material may be provided within an envelope.

Rejections under 35 USC §103(a)

Claims 27-32 and 36-49 are rejected under 35 USC §103(a) as being unpatentable over Kuznetz (US 4,813,160, herein after '160) in view of Smith et al. (US 5,877,100, herein after '100) and Giese et al. (US 4,005,532, herein after '532). Applicant respectfully traverses the rejection. Applicant submits that §103 rejections of USPN 5,877,100 in view of 4,813,160, have been previously presented and responded to by Applicant in commonly owned US Pat. App. 10/207,626, now abandoned, to which this application claims priority.

The present claims are directed to a method of insulating a boot comprising providing a mixture comprising a porous material selected from fumed metal oxide and aerogel, and compressing the mixture to form a structure material. The method further comprises placing the structure material in a gas impermeable envelope, evacuating and sealing the envelope at reduced pressure, to form a flat insulating structure. Claim 30 is directed to a flat insulating structure having more than one section of structure material to facilitate shaping. The evacuated, sealed flat insulating structure is shaped into a shaped insulating structure; and the shaped insulating structure is placed into at least one of the toe cap area, the boot upper and the boot sole.

Patent '160 teaches a ventilated athletic shoe wherein an insert (13) is placed between a flexible outer sole (11) and a flexible inner sole (12). '160

states that the sole, which includes both inner and outer soles, is flexible and has sufficient strength appropriate to athletic shoes (col. 3, lines 44-51). The insert (13) is formed of fibrous thermal insulating material such as a pad having fine silica or glass fibers having air trapped therein. Upon a fair reading of '160, one skilled in the art would understand that the insert of '160 should be strong, flexible, and durable, made of a fibrous pad having air trapped therein.

'160 does not teach a method of insulating a boot; it teaches an athletic shoe preferably formed of a fabric or light-weight material of high flexibility suitable for an athletic shoe (col. 3). '160 does not teach forming a flat insulating structure by placing a structure material in an envelope evacuated of air and sealed at reduced pressure; it teaches a structure in the form of a fibrous pad having air trapped therein. '160 does not teach forming a flat insulating structure comprising more than one section of structure material to facilitate shaping. '160 does not teach shaping a sealed evacuated flat insulating structure in to a shaped insulating structure and providing this insulating structure to a toe cap, boot upper, or boot sole; it teaches placing the pad between two flexible soles. Applicant respectfully asserts that the shoe of '160 appears to suggest little with regard to the claimed method of insulating a boot, except that it is directed to an article that can be worn on a foot and it has insulation.

Patent '100 is cited as remedying many of the deficiencies of '160. '100 teaches methods of making particulate gel compositions. '100 teaches forming *insulating structures* where the term 'structure' refers to any enclosed space which can be filled with the particulate composition, and such structures include panels, blankets, housings, and walls. Also described are *vacuum insulation panels or vacuum insulation structures* where the particulate compositions are enclosed within a substantially gas impermeable barrier. These vacuum insulation structures are placed within a space, such as within the walls of refrigerators or freezers. It is stated that the thickness of vacuum insulation structures will generally be from about 3 to 50 mm. It is further stated that a preferred gas impermeable barrier survive handling without puncture or damage, and when thinner materials are used, the life expectancy of the apparatus into which they are placed may be reduced. Applicant asserts that one skilled in the art would lack motivation to modify '160 by '100 when faced with the problem of developing a method of insulating athletic footwear. Moreover, the teachings of both '160 and '100 may even direct one skilled in the art away from the claimed method.

First, applicant asserts that '160 teaches using a fibrous pad with air trapped therein for insulation between two flexible soles. '100 teaches gas impermeable enclosure-vacuum insulation panels of '100 for use, e.g., within the walls of appliances such as refrigerators, freezers, and coolers. There is no motivation to replace the insulation of '160 located between two flexible soles, with an air evacuated vacuum panel that is normally used between walls of such non-flexible objects such as refrigerators.

In addition to providing insulation, one skilled in the art would understand insulating structures suitable for use in athletic footwear to require a combination of features such as thinness, compressibility, flexibility, impact resistance, and/or durability from the rigors of athletic activity. A fair reading of '100 by one skilled in the art would suggest that the gas impermeable enclosure-vacuum panel structures of '100 would not be suitable for athletic shoes, particularly in view of '160 where the enclosure used to encase the particles of '100 is stated merely as preferably having strength sufficient to survive handling without puncture or damage (col. 12, lines 53-62), and where thin materials may reduce the life expectancy of the articles into which they are placed. Applicant asserts that one skilled in the art of footwear would be directed away from the insulating methods of '100 when faced with the challenge of forming an insulated athletic shoe subject to the rigors of athletic activity.

Moreover, the combination of references does not disclose or suggest all of the limitations of Applicant's claimed method. Applicant has claimed a method comprising, among other things, the steps of placing structure material in an envelope and evacuating the envelope, forming a flat insulating structure. The sealed, evacuated flat insulating structure is then shaped into a shaped insulating structure. Applicant asserts that this is different than the teaching of '100 at col. 11, lines 64-67 where the particulate composition is placed in a porous pouch and pressed into a desired shape prior to placement in a gas impermeable enclosure and therefore, shaping takes place prior to evacuation and prior to forming a vacuum panel. Therefore, there is no teaching of the step of shaping after evacuation. There is no disclosure or suggestion of forming an evacuated flat insulating structure having sufficient flexibility to be shaped after evacuation. Thus, the method as claimed is not disclosed or suggested.

'160 in view of '100 also does not suggest a vacuum panels can be made for durable use as required in footwear or for having the claimed thermal conductivity in forms less than 3mm as claimed in claims 44-47.

'160 in view of '100 does not teach shaping flat panels into a shaped insulating structure, such as a toe cap. '532 is cited as teaching an insulating structure of '160, made from the vacuum panel of '100, into the shape of a toe cap. Applicant asserts that there is no motivation to modify '160 in view of '532, wherein '532 is directed to an insole which may comprise a toe portion and where '160 inserts insulation between inner and outer soles.

'160 in view of '100 does not teach a sealing step for forming seals between sections of an insulating structure to provide flexibility for shaping. Thus, the claimed methods would not be obvious to one skilled in the art. Removal of the rejection is respectfully requested.

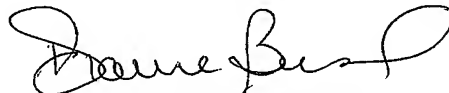
Double Patenting

Claims 27-29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-34 of copending Application No. 11/106,788 in view of Garbuio (US 3,925,916) substantially as set forth in the April 20, 2006 Office Action. After all actions on the merits are resolved for the instant application, Applicant will consider filing a terminal disclaimer to overcome the obviousness rejection if it is deemed necessary.

Conclusion

For the foregoing reasons, the present invention as defined by the claims is neither taught nor suggested by any of the references of record. Accordingly, Applicant respectfully submits that these claims are now in form for allowance. If further questions remain, Applicant requests that the Examiner telephone Applicant's undersigned representative before issuing a further Office Action.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Dianne Burkhard".

Dianne Burkhard, 41,650
W. L. Gore & Associates, Inc.
551 Paper Mill Road
P.O. Box 9206
Newark, DE 19714-9206
(302) 738-4880

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